MISSISSIPPI VIRTUAL SYNCHRONOUS LEARNING INITIATIVE (REACH)

In Partnership with Mississippi Public Broadcasting

Application for Participation in the Mississippi REACH Remote Teaching Program

District Information

- **District Name:** _____
- **District Superintendent:** _____
- **Contact Person for Virtual Initiative:** _____
  - **Title:** _____
  - **Email:** _____
  - **Phone:** _____

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1. Purpose of Participation

Please describe the district's current teacher shortage(s) in **critical need areas** such as English, Math, or Science. Include:

- Number of unfilled or inadequately filled positions
- Impact on student learning
- Justification for the need to participate in this initiative

Response:

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2. Technology Capacity

Confirm that the district can support synchronous virtual learning with the following:

- Stable high-speed internet connectivity in all participating classrooms
- Devices (e.g., Chromebooks, laptops, interactive boards) for each student
- Technical support personnel for real-time issue resolution
- Infrastructure to support Zoom and or Teams
- See Addendum A and Addendum B for specifics

Describe your district's readiness and list the specific technology resources that will support synchronous instruction.

Response:

3. Onsite Facilitator Commitment

Each participating classroom must have a trained **onsite facilitator** who will:

- Supervise students during synchronous instruction
- Support student engagement
- Monitor behavior and compliance with classroom norms
- Communicate with the virtual instructor when needed

List the designated facilitator(s) for each course and describe their qualifications or training plans.

Response:

4. Support for Students with Disabilities (504/IEP)

Participating districts must ensure accommodations for students with documented needs under 504 Plans or IEPs are maintained during synchronous virtual learning.

- Describe how your district will provide support and accommodations (e.g., assistive tech, interpreter services, paraprofessionals, modifications to content delivery).

Response:

5. Data Entry and Reporting Responsibilities

Districts are responsible for:

- Entering and maintaining grades in their Student Information System (SIS)
- Recording and reporting daily attendance
- Coordinating with the virtual teacher as needed to ensure data accuracy

Explain the district plan and personnel responsible for managing student information (grades, attendance, etc.). Please provide your course configuration (A/B, 4x4, 7 period. Etc)

Response:

6. Courses Requested

Course Title	Grade Level(s)	Semester(s) Needed	Number of Students	Campus Location(s)

7. Assurances

By signing below, the district affirms its commitment to:

- Provide appropriate technology and infrastructure for virtual synchronous learning
- Assign and train a dedicated onsite facilitator for each participating class
- Uphold all state and federal requirements for accommodating students with disabilities
- Enter grades and attendance accurately into the district's SIS
- Collaborate with the Mississippi Department of Education and approved virtual learning providers to ensure student success

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Superintendent Signature: _____

Date: _____

Submission Instructions

Please submit the completed application to:
Offices of Curriculum and Instruction, Innovation
Mississippi Department of Education

Deadline: July 30th, 2025 for initial application

by the 10th of each month to for consideration to participate the following month

Addendum A

Virtual Classroom Specifications and Setup

Technical Guidelines for Setting Up a Virtual Classroom

This document provides a clear guide for setting up and running an effective virtual classroom. These recommendations help schools use the best technology for online and hybrid learning. By following these guidelines, teachers and students can experience smooth, high-quality interactions with minimal disruptions.

To make sure online classes run well, schools should use wired internet connections instead of Wi-Fi. Wired connections are more stable and allow for higher-quality video and audio. Wireless networks, while useful, can be unreliable because of interference and slower speeds. If schools need help with setting up or fixing technical issues, they should contact Melvin Robinson, the lead IT specialist.

🖥️ 1. Display Solutions

Recommended:

- **At least 65-inch TVs or Interactive Boards**
- **Integrated PC** preferred for smartboard functionality

✅ Best Viewing Setup:

- 📏 **Distance:** 8–12 feet (2.5–3.7 meters) from students
- 👁️ **Eye-Level Mounting:** Reduces neck and eye strain
- 🛡️ **Comfort Features:** Anti-glare coating and blue-light filter

⚙️ Technical Specs:

- **Resolution:** Minimum **1080p**, preferably **4K UHD** or **8K**
- **Color/Brightness: HDR10** or **Dolby Vision** for vibrant visuals
- **Built-In OS:** Android or Windows computing module
- **Connections:**
- 3x HDMI ports
- DisplayPort
- USB-C

📷 2. Camera Systems for Online Learning

🎯 Best Placement:

- **6–15 feet (1.8–4.5 meters)** from students
- **Mount on the TV** for a clear, stable view
- Use **multiple cameras** for large spaces

📹 Camera Features:

- **Resolution:** At least **1080p**, preferably **4K UHD**
- **Frame Rate:** Minimum **30fps**, **60fps** for smooth video
- **Auto-Tracking:** AI follows the speaker
- **Zoom: 5x minimum**, **12x+ recommended**
- **Low-Light Support:** Adapts to classroom lighting

🎙️ 3. Microphone & Audio Setup

🎤 Microphone Types:

- Ceiling, desk, or **wireless lapel mics** (depends on room size)
- **Noise Reduction & Echo Control**
- **Audio Zoning** for selective sound pickup

🔊 4. Classroom Speaker System

🔧 Best Setup:

- Connect **USB or AC-powered speakers** to a laptop
- **Smart Sound Features:**
- Automatic volume adjustment
- Noise suppression
- **Power:** Minimum **40W RMS** for large rooms

💻 5. Virtual Learning Computer (If Not Built-In)

⚙️ Required Specs:

- **Processor:** Intel **Core i9** or AMD **Ryzen 9**
- **RAM:** At least **32GB** (64GB preferred)
- **Graphics:** NVIDIA **RTX 3060** or AMD **RX 6700**
- **Connectivity:**
- LAN Ethernet
- **Wi-Fi 6E**
- **Bluetooth 5.2+**
- **Multi-Screen Support:** HDMI, DisplayPort, Thunderbolt

🏫 6. Classroom Setup & Organization

🔌 Cable & Power Management:

- **UPS Backup:** Uninterruptible power supply
- **Protection:** Use **surge protectors and voltage regulators**

🛋️ Layout Tips:

- Arrange desks so students **face the screen**
- Ensure microphones can **pick up voices clearly**

✅ **Final Tip:** By following these updated guidelines, your school can create a **modern, effective virtual learning environment** that supports **clarity, comfort, and connectivity** for all users.

Display Solutions: at least 65-inch Televisions or Interactive Boards with Integrated PC

🎓 **Classroom Technology Setup for Virtual Learning**

Practical Guidelines for Optimized Teaching & Student Engagement

📺 1. Best Viewing Setup

- **Distance from Students:**

➤ **8–12 feet (2.5–3.7 meters)** for clear screen visibility

- **Mounting Height:**

➤ Position screen at **eye level** to reduce neck strain

- **Eye Comfort:**

➤ Use displays with **anti-glare coatings** and **blue-light filters**

🛠️ 2. Display Technical Requirements

- **Resolution:**

➤ Minimum: **1080p (Full HD)**

➤ Preferred: **4K UHD** or **8K**

- **Color & Brightness:**

➤ Look for **HDR10** or **Dolby Vision**

- **Built-in Features:**

➤ Integrated **Android OS** or **Windows modules** = smartboard functionality

- **Connections:**

➤ At least:

▪ 3x **HDMI ports**

▪ 1x **DisplayPort input**

▪ **USB-C support**

📷 3. Camera Systems for Online Learning

📌 Placement

- Distance: **6–15 feet (1.8–4.5 meters)** from students
    - Mount on or above the **TV/display**
- Use **multiple cameras** for large classrooms

🔍 Features

- **Resolution:** At least **1080p**, ideally **4K UHD**
- **Frame Rate: 30fps minimum**, **60fps preferred**
- **AI Auto-Tracking:** Follows speaker movement
    - **Zoom:**
    - Good: **5x zoom**
    - Better: **12x+ zoom**
- **Low-Light Support:** Auto adjustment to classroom lighting

🎙️ 4. Microphones & Audio Setup

🎤 Microphone Options

- **Ceiling microphones** (large spaces)
- **Desk microphones** (small classrooms)
- **Wireless lapel mics** (teacher mobility)

🔊 Audio Features

- **Noise reduction** and **echo cancellation**
- **Audio zoning** for targeted sound capture

🔈 5. Classroom Speaker System

- **Connection:**

➤ USB or AC-powered, connected to classroom laptop or PC

- **Smart Sound:**

➤ Auto volume and noise control

- **Power:**

➤ At least **40W RMS** for clear, full-room audio

💻 6. Computer Requirements (if no integrated PC)

Minimum Specs

- **Processor:** Intel **i9** or AMD **Ryzen 9**
- **RAM: 32GB** (64GB preferred)
- **Graphics:** NVIDIA **RTX 3060** or AMD **RX 6700**
- **Connectivity:**
  - **LAN Ethernet**
  - **Wi-Fi 6E**
  - **Bluetooth 5.2+**
- **Display Support:**

➤ Multi-screen via **HDMI**, **DisplayPort**, or **Thunderbolt**

🏫 7. Classroom Organization & Power Management

🔌 Power Safety

- **UPS (Uninterruptible Power Supply)** to avoid shutdowns
- **Surge protectors** and **voltage regulators** for equipment safety

🪑 Layout Tips

- Arrange desks for **clear sightlines** to the screen
- Ensure **microphones pick up voices** from all speaking zones

✅ **By implementing these standards**, schools can create an efficient, future-ready virtual learning environment that enhances teaching, improves student interaction, and supports long-term digital learning goals.

Addendum B

Zoom and Teams Support

This document provides detailed technical recommendations to assist recipient schools in establishing and implementing effective virtual classroom solutions. To ensure optimal quality, all network and internet connections should utilize **wired LAN** for enhanced stability and

performance, as **wireless connections** are not the preferred option. For assistance with implementation or any support-related inquiries, please contact Melvin Robinson, the designated primary point of contact for support.

The information provided reflects the latest technical support resources from Microsoft Teams and Zoom platforms.

Video Resolutions Supported by Microsoft Teams

Standard Resolutions

- **Low Definition (LD):**
  Teams can operate at 360p resolution when network conditions are less than ideal. This ensures the call remains stable even with limited bandwidth.
- **High Definition (HD):**
  Teams typically streams at 720p (1280x720), which is supported by most devices and connections.
- **Full High Definition (FHD):**
  For users with stronger networks and compatible hardware, Teams can deliver 1080p (1920x1080) video in meetings.

Availability Based on Teams Plan

- **720p (HD):**
  This is available to all Teams users, regardless of their subscription plan.
- **1080p (Full HD):**
  This higher resolution is accessible to users on Microsoft 365 Business Standard, Business Premium, Enterprise, and Education plans. Both participants need compatible devices and sufficient internet speed for 1080p video.

Bandwidth Requirements

- **360p (Low Definition):**
  Requires approximately **0.5 Mbps** for both upload and download.
- **720p (HD):**
  Requires around **1.2 Mbps** for upload and download to maintain smooth video.
- **1080p (Full HD):**
  Needs at least **4.0 Mbps but recommend 20 Mbps** for both upload and download. A stronger connection will provide better stability and quality.

Screen Sharing and Resolutions

- **Screen Sharing Only:**
  Teams supports resolutions up to 1080p for shared content. The resolution depends on the quality of the shared content and the device displaying it.
- **Screen Sharing with Video:**
  Video resolution remains adaptive, but Teams will strive for the best quality based on bandwidth.

Device and Network Considerations

To make the most of Teams' video capabilities, it's important to have:

- **HD-capable hardware:** A webcam that supports 720p or 1080p is essential for higher resolutions.
- **Stable network:** Wired connections or strong Wi-Fi help ensure consistent quality.

Teams automatically adjusts video quality based on real-time network conditions. This means even if you start with HD video, it might reduce the resolution temporarily if your connection slows down.

Video Resolutions Supported by Zoom

Standard Resolutions

- **Low Definition (LD):**
  - **360p (640x360):**
    Typically used in low-bandwidth environments to maintain call stability.
- **High Definition (HD):**
  - **720p (1280x720):**
    Available to most users and is the standard resolution for Zoom video calls when bandwidth and device capabilities allow.
- **Full High Definition (FHD):**
  - **1080p (1920x1080):**
    Available for advanced setups, often requiring a Business, Enterprise, or Education plan. Requires sufficient bandwidth and compatible hardware.

Bandwidth Requirements

Zoom adjusts video quality based on available bandwidth. Below are the approximate bandwidth needs for different resolutions:

- **360p (LD):**
  Requires **0.6 Mbps** (upload and download).
- **720p (HD):**
  Requires **1.2 Mbps** (upload and download) for a single screen.
- **1080p (FHD):**
  Requires **3 Mbps** but recommends **20 Mbps** (upload and download) for a single screen.

Enabling 1080p HD Video

To enable 1080p video in Zoom, certain conditions must be met:

1. **Plan Requirement:**
   - 1080p is available only for users with **Business**, **Enterprise**, or **Education** plans.
2. **Hardware Requirements:**
   - Requires an HD-capable camera and a computer with sufficient processing power.
3. **Account Settings:**
   - The **Group HD Video** setting must be enabled by an account admin.
4. **Meeting Type:**
   - 1080p is often used in webinars or large meetings where higher video quality is critical.

Screen Sharing Resolutions

Zoom supports high resolutions for screen sharing:

- **Content Only:**
  Screen sharing resolutions can go up to 1920x1080 or higher, depending on the resolution of the shared screen.
- **Content with Video:**
  The video resolution may adjust dynamically based on bandwidth and network conditions.

Dynamic Adjustment

Zoom automatically adjusts video quality based on real-time network conditions to ensure a smooth experience. This means your resolution might vary during a call, even if you start with HD or FHD.